



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,215	08/01/2003	Alberto Pique	NC 84,952	3310
26384	7590	08/08/2005	EXAMINER	
NAVAL RESEARCH LABORATORY ASSOCIATE COUNSEL (PATENTS) CODE 1008.2 4555 OVERLOOK AVENUE, S.W. WASHINGTON, DC 20375-5320			BUEKER, RICHARD R	
		ART UNIT		PAPER NUMBER
		1763		
DATE MAILED: 08/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/631,215	PIQUE ET AL.
	Examiner	Art Unit
	Richard Bueker	1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 May 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1, 4, 5, 7, 11, 13 and 14 is/are rejected.
- 7) Claim(s) 3, 6, 8-10 and 12 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 as written is dependent on a cancelled claim.

Claims 1, 13 and 14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Joyce (5,292,559) taken in view of Gnanamuthu (4,716,270). Joyce discloses a laser transfer apparatus comprising a target substrate having a transparent support that carries a coating material to be transferred, a receiving substrate, and a laser positioned behind the target substrate for heating coating material and transferring it to the receiving substrate. Joyce (col. 3, lines 35-40) teaches the step of removing undesired polymer material from the deposited coating by means known in the art, but doesn't discuss the use of a second laser to treat the deposited layer. Gnanamuthu, however, teaches that polymer materials can desirably be removed by laser treatment while leaving an underlying metal material undamaged (abstract). It would have been obvious to one skilled in the art to perform the polymer removal step taught by Joyce by means of the laser treatment process taught by Gnanamuthu to gain the benefits of the polymer removal process as taught by Gnanamuthu. Therefore it would have been obvious to provide a second laser as recited in applicants' claim 1.

Claims 4, 5, 7 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Joyce (5,292,559) taken in view of Gnanamuthu (4,716,270) in further view of Hirano (6,099,626), who teaches (col. 4, lines 19-44) that a mixture of

metal powders with organometallic compounds acts as an efficient light to heat converter for laser transfer target substrates. It would have been obvious to one skilled in the art to utilize metal powders and organometallic compounds in the source material taught by Joyce to gain the benefit of an efficient light absorbing layer as taught by Hirano.

Claims 1 and 13-14 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Opower (5,725,914), who discloses a laser coating apparatus which includes a first laser (see Figs. 8 and 11) for ablating a coating material layer off of a target substrate and depositing it on a receiving substrate. Opower also teaches that his deposition apparatus can be used in the multiple process chamber apparatus shown in Opower's Fig. 1, wherein a coating that has been deposited by use of the first laser is then treated by a second laser. Treatment by such a second layer would inherently transform the material into a "material of interest" as claimed by applicants in claim 1.

Claims 4, 5, 7 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Opower (5,725,914) taken in view of Joyce (5,292,559) and Hirano (6,099,626). Opower doesn't discuss the use of a polymer light absorbing layer to assist in the removal of his coating layer from the target substrate. Joyce and Hirano, however, teach the desirability of using such a light absorbing layer, and for that reason it would have been obvious to use such a light absorbing layer in the target substrate of Opower. Also Hirano teaches (col. 4, lines 19-44) that a mixture of metal powders with organometallic compounds acts as an efficient light to heat converter for laser transfer

target substrates. It would have been obvious to one skilled in the art to utilize metal powders and organometallic compounds in the source material of Opower to gain the benefit of an efficient light absorbing layer as taught by Hirano.

Regarding the newly added claim 1 limitation of "wherein the first laser and the second laser are copropagating or coaxial", it is noted that "propagate" is defined as "to travel through space or a material – used of wave energy (as light, sound or radio waves)". When a laser emits a laser beam, it is propagating. Thus, the limitation of copropagating lasers means only that the two recited laser are emitting a beam at the same time. Also, it is noted that the present claims are apparatus claims, while the recited "copropagating" limitation is a process-type limitation that does not so limit the apparatus claims. This limitation only requires the apparatus to be inherently capable of practicing the recited process-type limitation. The lasers of Opower are inherently capable of emitting a laser at the same time. Therefore, the apparatus of Opower is inherently capable of being used in the manner recited in the new claim 1 limitation. The same is true of the Joyce apparatus as modified by the teachings of Gnanamuthu as described in the above stated rejection.

Claims 6, 8-10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parvis Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1763

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard Bueker
Richard Bueker
Primary Examiner
Art Unit 1763